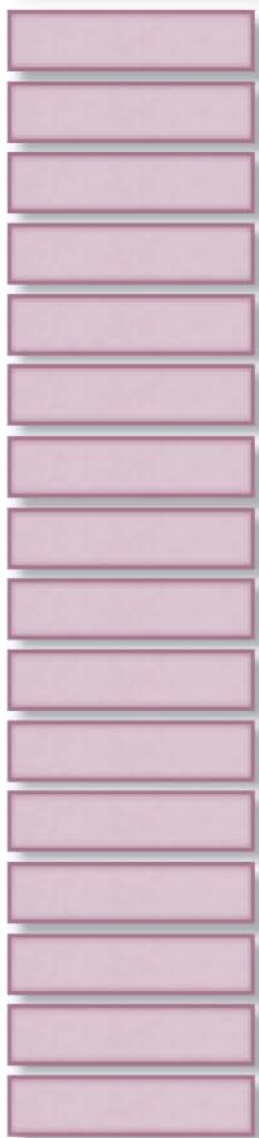


ISTEP+

Grade 7 Item Sampler





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Dear Colleague:

In this sampler, you will find information designed to guide, direct, and clarify your efforts in preparing for and administering Indiana Statewide Testing for Educational Progress-Plus (*ISTEP+*). We want your students to be prepared to pass *ISTEP+* every time they take the test, and we feel this sampler is an excellent instructional resource.

As a classroom teacher, your knowledge of the Indiana Academic Standards assessed on *ISTEP+* is very important. Your ability to use that knowledge in your instructional strategies with your students and your familiarity with all aspects of test administration are critically important to students' success on the test and with the rest of their coursework. You influence students' choices and futures as well as their academic achievement.

We expect that the information provided in this sampler will help you in your ongoing efforts to educate and motivate your students. Please see the Department of Education's Web site at **www.doe.state.in.us** for additional information about Indiana Statewide Testing for Educational Progress-Plus (*ISTEP+*).

Thank you for all you do to prepare students to meet the challenges they will face in this ever-changing and challenging world.

Sincerely,

A handwritten signature in cursive script that reads "Dr. Suellen Reed".

Dr. Suellen Reed
Superintendent of Public Instruction

Introduction

The *Grade 7 Item Sampler* provides information about the *ISTEP+* tests for students, parents, educators, and others affected by the tests. The information in this sampler has been compiled by the Division of School Assessment of the Indiana Department of Education and CTB/McGraw-Hill, the test development contractor for Indiana.

The test items (questions) in this sampler are intended to provide teachers with specific examples of how the different standards will be measured on the test. These examples can serve as models when teachers are constructing test items for classroom assessment. The sampler is not a practice test. This book includes sample test items and scoring rubrics for both English/Language Arts and Mathematics that reflect the Indiana Academic Standards adopted in November 2000. All items included in this book are samples of the types of items assessed on *ISTEP+* and **not** actual items. The scoring rubrics presented for Language Conventions and Writing Applications are the actual rubrics used to score the writing prompts and/or extended-response items for English/Language Arts. All samples are representative of the types of items that students taking the *ISTEP+* assessment at Grade 7 will be required to answer.

A condensed version of the Indiana Academic Standards is included in this sampler. These are the skills that all Indiana students are required to know and be able to perform. Complete copies of the Indiana Academic Standards can be obtained from the Department of Education's Web site at www.doe.state.in.us or directly from the Department of Education.

Frequently Asked Questions

Q. What are the *ISTEP+* assessments for Grades 3 through 9 designed to do?

- A.** These assessments measure students' mastery of the Indiana Academic Standards in English/Language Arts and Mathematics taught in the grade levels **prior** to Grades 3 through 9. They are part of a statewide testing program designed to connect student learning, classroom instruction, school improvement, and educational goals. *ISTEP+* results provide information about the strengths and weaknesses of individual students as well as aggregate data about school, district/corporation, and state performance. The test is designed to permit inferences about student achievement in the critical knowledge and skill areas defined by Indiana's Academic Standards and to evaluate curriculum choices and instructional strategies made by schools and school corporations. It is **not** intended that grade-level curricula be restricted to the content of this test. The required criterion-referenced test consists of two parts: the Basic Skills Assessment (multiple-choice items) and the Applied Skills Assessment (open-ended items).

Q. What are the Indiana Academic Standards?

- A.** In collaboration with state K–12 educators, the Indiana State Board of Education has adopted world-class standards for each grade level in English/Language Arts and Mathematics. These learning outcomes require that Indiana schools have rigorous curricula aligned with state standards and that students learn the skills and knowledge deemed necessary for successful performances in school, at work, and in the community. *ISTEP+* testing for Grades 3 through 9 is based on the academic standards from **previous** school years. For example, testing in Grade 3 measures mastery of Indiana Academic Standards for Grades K–2, Grade 4 measures K–3 standards, and Grade 5 measures K–4 standards, etc. While these standards set expectations for student learning, they do not prescribe how the standards should be taught. Teachers should use their considerable skills, experience, talents, and creative resources to design standards-based classroom instructional activities tailored to meet the individual needs of their students. Copies of the *Teacher's Edition of Indiana's Academic Standards* have been forwarded to all school administrators and teachers.

Q. In what ways are *ISTEP+* results linked to state and federal accountability?

- A.** Indiana is required by state and federal law to administer a statewide assessment program that systematically measures student performance and monitors progress toward pre-established goals by all schools. *ISTEP+* results are a primary component for educational accountability under both Public Law 221 (state) and the No Child Left Behind Act (federal). Testing data are also used to inform local decision making and guide Continuous School Improvement initiatives.

Q. How are test items created for this assessment? How does Indiana ensure that the test items are valid and unbiased for our students?

- A.** Since 1987, in conjunction with a test development company (CTB/McGraw-Hill), Indiana educators have collaborated in all steps of the test design and item development process. Indiana teachers help determine how standards will be tested by providing to the test developer assessment guidelines for the standards. Teachers review and approve all reading passages prior to the construction of test items and

review all test items to ensure that they are developmentally appropriate for the grade level and that they accurately measure the standards they were designed to assess. After additional reviews by the Citizens Review Committee and the Sensitivity Review Committee, items are evaluated on a pilot test form administered to Indiana students. Only items approved through these measures will appear on the actual *ISTEP+* assessments.

Q. How are test items scored?

- A. Multiple-choice (selected-response) items are scored by machine in Salinas, California. Open-ended (constructed-response) items are read and electronically scored in Indianapolis by trained scorers. Scores on these items are based on correct answers as well as on level of understanding and ability to communicate. Rubrics guide scorers in assigning scores on the writing prompts and the open-ended items. Each rubric contains a list of acceptable responses (exemplars) as well as a description of the level of performance for each score point. If a student gives a response that is not listed as an exemplar but is supported by the text, the student receives credit for the response. Anchor papers are selected for each designated score point of an item. These are used as guides for the scorers in scoring the applied skills sections.

Q. How does Indiana ensure that scoring is reliable?

- A. Potential scorers, who must be college graduates and meet other competitive qualification requirements, are screened carefully during two interviews. Once selected, scorers train for several days with actual student responses from item pilots and must pass a test before they begin to score “live” student responses. The scorers must continue to demonstrate proficiency in following established scoring guidelines throughout their terms of employment. To ensure that grading by all scorers consistently matches the guidelines established in the scoring rubric, the trained scorers are monitored closely by testing supervisors. Each scorer is administered a “checkset” (a set of pre-scored student responses) several times a day that compares his or her grades to those assigned by the supervisor. In addition, the team leader, who works with a team of nine scorers, randomly rescores a percentage of each scorer’s completed items. Finally, 5% of the total responses are rescored daily to ensure scorer reliability.

Q. What is the policy regarding rescoring items?

- A. Within a specified window of time, a student’s parent or guardian may request a rescoring of specific items from a student’s test, including the writing prompts. It should be stressed that the scores obtained through the rescoring will be final and that the rescoring may have positive, negative, or no effect on the final score. Scores resulting from rescoring items are unlikely to be more than a few points different from the original score.

Q. What practices are appropriate when *preparing* students for *ISTEP+*?

- A. It is important that students anticipate the tests with interest rather than with anxiety. They should realize that they are taking achievement tests that yield information

about the skills they have mastered as well as the skills they need to learn. Point out that questions intentionally cover a range of difficulty. The Department of Education's (DOE) policy about test preparation is that **any activity in the school or classroom that creates an excessive focus on the specific test content of *ISTEP+* for the purpose of artificially raising test scores, whether overt or inadvertent, is inappropriate.** The *Indiana Code of Ethical Testing Practices and Procedures* was created to assist in answering specific questions about what constitutes "excessive focus." This document has been distributed to schools and corporations and may be downloaded from the DOE Web site. For easy reference, the following is a summary of ethical practices.

It is considered **appropriate** to do the following:

- review with all students the skills and concepts, including those unique to English/ Language Arts and Mathematics, taught in previous years (see classroom activities in *Curriculum Frameworks*)
- review *ISTEP+* objectives as part of a general review of curricula
- discuss general test-taking strategies and have students complete the *ISTEP+* practice tests that are included with regular materials at a time suggested by the *ISTEP+ Examiner's Manual*
- talk with students and parents about academic expectations and the importance of setting specific performance goals that enable students to assume responsibility for their learning
- develop instructional objectives based on the Indiana Academic Standards
- use test results as part of a body of evidence in making informed decisions about individuals, educational programs, or curriculum

It is considered **inappropriate** to do the following:

- teach or "cram" *ISTEP+* content (that has not been previously covered) during the time period immediately preceding the examination
- call students' attention to the fact that a similar question will be on the upcoming *ISTEP+*
- review *ISTEP+* related skills and concepts with **only** those students to be tested
- select for review **only** those *ISTEP+* objectives or items on which students performed poorly on previous examinations or focus instructional objectives on specific test items
- copy test items for instructional use or make minor alterations in test items to construct study guides, worksheets, or classroom assessments specifically designed for test preparation purposes
- use current, past, or parallel *ISTEP+* test items as review materials except those authorized for such use by the DOE (the released applied skills items found in the *Teacher's Scoring Guides* for Grades 3 through 9)

NOTE: Duplication of any part of the test books constitutes a serious breach of security as some test items may appear in future versions of the test. Exposing

students to test questions before testing invalidates test scores and denies students the opportunity to participate in testing.

Q. What practices are considered inappropriate *during* testing?

- A.**
- coaching students in any way (verbally or with gestures or facial expressions)
 - using any mechanical or technical device during a session **not** approved for such use, except by students for whom such use is an authorized IEP accommodation
 - answering questions about test items or vocabulary
 - the reading of *passages* to any students in the English/Language Arts *ISTEP+* tests is **not** allowed. Test *directions* and test *items* on any *ISTEP+* test may be read aloud only to students with an IEP or 504 Plan that allows such an accommodation.
 - allowing noncertified personnel (e.g., aides or parent volunteers) to administer the test. Noncertified personnel, however, may serve as test proctors.

Q. How do I access more information about *ISTEP+* and other test-support resources?

- A.** The Department of Education maintains a Web site at **www.doe.state.in.us** that provides immediate access to *ISTEP+* information as well as to legislative updates and information about the Indiana Academic Standards, accountability, school improvement, and professional development. The *ISTEP+* Web page, accessible from this site, includes a calendar with upcoming test dates, bulletins with current testing information, and a list of *ISTEP+* support documents that may be downloaded. These documents include the *Guide to Test Interpretation*; the item samplers for Grades 3, 6, and 8, and the GQE; and the *ISTEP+ Program Manual*. **Multiple copies of *ISTEP+* support documents should be ordered through the school's Test Coordinator.**

Questions about assessment not answered in this sampler may be directed to Cynthia Roach (at **croach@doe.state.in.us**), Assessment Consultant. The School Assessment Division's telephone number is 317-232-9050, and the toll-free testing hotline is 888-544-7837 (888-54ISTEP).



English/Language Arts

GRADE 6 INDIANA ACADEMIC STANDARDS

- ❑ **READING: Word Recognition, Fluency, and Vocabulary Development**
Students use their knowledge of word parts and word relationships, as well as context clues (the meaning of the text around a word), to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.
- ❑ **READING: Reading Comprehension**
Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of the text by using their knowledge of text structure, organization, and purpose.
- ❑ **READING: Literary Response and Analysis**
Students read and respond to grade-level-appropriate historically or culturally significant works of literature that reflect and enhance their study of history and the social sciences. They clarify the ideas and connect them to other literary works.
- ❑ **WRITING: Writing Process**
Students discuss and keep a list of writing ideas and use graphic organizers to plan writing. They write clear, coherent, and focused essays. Students progress through the stages of the writing process and proofread, edit, and revise writing.
- ❑ **WRITING: Writing Applications**
Students write narrative (story), expository (informational), persuasive, and descriptive texts of at least 500 to 700 words. Student writing demonstrates a command of Standard English and the research, organizational, and drafting strategies outlined in Standard 4—Writing Process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing.
- ❑ **WRITING: Written English Language Conventions**
Students write using Standard English conventions appropriate to this grade level.
- ❑ **LISTENING AND SPEAKING: Listening and Speaking Skills, Strategies, and Applications**
Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication. Students deliver well-organized formal presentations using traditional speech strategies, including narration, exposition, persuasion, and description. Students use the same Standard English conventions for oral speech that they use in their writing.
(Because this standard does not lend itself to a paper-and-pencil test, it is not currently assessed by ISTEP+.)

NOTE: This page provides an overview of the Indiana Academic Standards. The IDOE Web site at www.doe.state.in.us contains a complete version of the Indiana Academic Standards, which may be downloaded.

The Greatest Runner of All Time

First one person stood up and then another and another. Someone in the crowd began to applaud, and soon everyone else joined in as Glenn Cunningham made his final lap around the track. He was about to break a world record in the mile. As he made his victory lap around the track, one might wonder how he could walk, much less run.

In 1916, when Glenn was seven years old, his legs were so badly burned in a fire that his doctor thought he would never walk again. But Glenn thought otherwise. After spending weeks in bed he got up and started using crutches to get around. When his legs got stronger, he tried walking without the crutches but it was very painful. Glenn would say later, "It hurt like thunder to walk, but it didn't hurt at all when I ran. So for five or six years, about all I did was run."

With all the practice he had running, it was natural for Glenn to join his school's track team. While he was in high school, he became a track star and set record times in the mile run. After he

graduated high school, he went to the University of Kansas. Glenn Cunningham became known as "The Kansas Flyer," and he won the National College Amateur Track championships in 1931 and 1932.

Glenn went on to run on the U.S. Olympic Team in 1932, received the Sullivan Award for outstanding amateur athletes in 1933, and won a silver medal in the 1936 Olympic games. The boy who was never supposed to walk again won two National College Amateur Athlete titles in track, was named the most outstanding track performer in the 100-year history of Madison Square Garden in 1978, and was inducted into the National Track and Field Hall of Fame in 1979.

It was never easy for Glenn. It took him nearly an hour to prepare for a race. But he never let that stop him or slow him down. He ran just as hard as he could with his bruised lungs and scarred legs and he won. So if determination and spirit lead a runner to greatness, one could say that Glenn Cunningham was the greatest runner of all time.

A Single Footprint in the Snow



Newsom's Meadow was a blank page that morning, pure and white. Seb Hampton's mind was equally vacant. He whistled dreamily as he walked along, all thoughts lost in the crisp, squeaky sound rubber boots make in fresh snow.

Suddenly, Seb stopped. Ahead was a dark spot, a dent in the snow. He was surprised to see a single footprint. His eyes scanned the meadow. The only other marks stretched out behind him, the tracks he'd just made.

Seb dropped his sled rope and bent low. The print had been made by a boot, bigger than his. The sides were distinct and sharp.

Waffled snow in the impression appeared slushy, as if someone had stepped there only a moment before him.

Even though he was wrapped up snugly, Seb shivered. It just didn't make any sense. A single footprint in the middle of a wide meadow? His mind went wild, running through every possible explanation.

No trees grew here, none that a person could jump down from. Nothing overhead but sky. Only one bush stood about fifteen feet away next to the wire fence—too small and too far away.

Seb remembered a tale he'd read once about a bird who stole a boot, intending to build a nest in it. He dropped it briefly near a poor widow's gate so he could rest. Later, the widow spotted that single print and nearly went crazy trying to figure out how it had gotten there. He now knew how that woman felt. Yet, unless it was a giant condor, what bird would be strong enough to lift a boot, much less fly with it?

Another story flitted through Seb's mind, something about magical shoes. The person who put them on could take gigantic steps and march across the continent in

a matter of minutes. "Seven League boots!" Seb said out loud. But he was too old to believe in fairy tales. He completely ruled out giants, munchkins, and any other mythical beast right from the start.

Quickly, Seb eliminated every logical, earthly explanation he could imagine—hot air balloons, hang gliders, world-class long jumpers, hailstones, groundhogs.

Then it hit him. "Very funny joke!" he yelled, spinning around, looking in all directions. Yonker Kemp was famous for pulling gags like this. Any second he'd come tumbling out of the bushes, howling like a coyote. "Yonk? Where are you?" The only sound was of a dog barking somewhere far off. The meadow was empty—except for Seb, his sled, and that confounding footprint.

For a moment he thought of running to get his friends, but he knew they'd never believe him. Muttering, he turned and trudged

off across the meadow, yanking his sled rope, following his own tracks back toward home. Halfway there, he met Yonker.

"Hamp!" Yonker called, grinning. Seb rushed past without looking up. "Aren't you going sledding?"

"Got to get to town!" Seb mumbled. Ignoring Yonker's puzzled shouts, he hurried on. Somewhere, in some book maybe, was the answer to the question that was burning a hole in his brain. "I've got to find out!" he murmured. "Maybe Mom will drive me to the library."

Yonker watched him go. Chuckling, he stopped and lifted something out of the snow by the side of the road. It was a long pole, nearly fifteen feet long. To one end was tied an old boot, filled with rocks. Howling like a coyote, Yonker hustled off, eager to see how many more people he could trick before noon.

Sample Test Items

READING: Word Recognition, Fluency, and Vocabulary Development

Students use their knowledge of word parts and word relationships, as well as clues from the surrounding text, to determine the meaning of words. Additionally, items assess a student's ability to understand figurative language, such as similes, metaphors, and words with multiple meanings. *ISTEP+* assesses the Word Recognition, Fluency, and Vocabulary Development Standard primarily through the use of multiple-choice items.

Numbers 1 and 2 are based on "The Greatest Runner of All Time," found on page 12.

1 Read this statement from the article.

"It hurt like thunder to walk, but it didn't hurt at all when I ran."

The phrase "it hurt like thunder" MOST LIKELY means

- ☐ Glenn ran very quickly wherever he went
- ☐ Glenn crashed into things when he walked
- ☒ Glenn was in great pain when he walked
- ☐ Glenn was afraid of walking to places

2 Read this statement from the article.

[Glenn Cunningham] was inducted into the National Track and Field Hall of Fame.

Which word MOST LIKELY means the same as *inducted*?

- ☐ interviewed
- ☒ installed
- ☐ instructed
- ☐ invited

READING: Reading Comprehension

Students read a variety of grade-level-appropriate narrative (story) and expository (informational and technical) texts. They describe and connect the essential ideas, arguments, and perspectives by using their knowledge of text structure, organization, and purpose. Additionally, students are able to assess the adequacy of evidence in support of claims and assertions and to follow directions for filling in applications. *ISTEP+* assesses the Reading Comprehension Standard through multiple-choice, constructed-response, and extended-response items that are based on passages.

Numbers 3 through 7 are based on “The Greatest Runner of All Time,” found on page 12.

3 What is this article MAINLY about?

- ☐ becoming famous
- ☐ understanding limitations
- ☒ overcoming challenges
- ☐ recognizing failure

4 Look at the timeline below of Glenn Cunningham’s life.

1916 burned in a fire
1931 won the National College Amateur Track championship
1932 _____
1933 received the Sullivan Award
1936 won a silver medal at the Olympics

Which of the following BEST completes the timeline?

- ☐ became known as “The Kansas Flyer”
- ☐ was inducted into the National Track and Field Hall of Fame
- ☒ ran on the Olympic track and field team
- ☐ was named the most outstanding track performer in the history of Madison Square Garden

5 The author gives enough evidence to show that

- ☐ running is an important pursuit
- ☐ practice can improve a talent
- ☐ Glenn Cunningham was a smart person
- ☒ Glenn Cunningham was a remarkable athlete

6 What are TWO reasons that the author refers to Glenn Cunningham as the “greatest runner of all time”?

1) _____

2) _____

Exemplars:

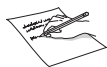
- Glenn won many awards despite being burned in a fire.
- Glenn was a successful runner who was an Olympic athlete.
- Glenn ran when doctors said he wouldn’t even be able to walk.
- Glenn was known as “The Kansas Flyer.”
- other relevant text-based response

Rubric:

2 points versions of two exemplars

1 point version of one exemplar

0 points other



- 7** A committee has been formed to name the top 20 athletes of the last 100 years. After reading about Glenn Cunningham, you think he should be nominated.

Write a persuasive essay in which you try to convince the committee that Glenn Cunningham should be included as one of the top athletes of the last 100 years. **In your persuasive essay, be sure to include at least TWO examples from the article that support your position.**

SCORED FOR READING

Exemplars:

- Glenn was a great athlete because he overcame great pain and obstacles to be able to walk and run again.
- Even though Glenn was badly hurt, he kept his spirits up and kept trying to succeed.
- Glenn went on to accomplish amazing feats on the track.
- Glenn won an Olympic medal and many other awards.
- He was nicknamed “The Kansas Flyer” because he was so fast.
- Glenn won many awards, which takes determination.
- other relevant text-based response

Reading Comprehension Rubric:

- 2 points** position is taken and response includes versions of two exemplars
- 1 point** position is taken and response includes version of one exemplar
- 0 points** other

ALSO SCORED FOR WRITING

Apply 4-point Writing Applications Rubric, Grades 6–12

Apply 4-point Language Conventions Rubric, Grades 6–8

Number 8 is based on "A Single Footprint in the Snow," found on pages 13 and 14.

8 At the beginning of the story, Seb stands in the middle of the meadow considering all the possible ways the print could have been made. What are TWO possibilities that Seb dismisses?

1) _____

2) _____

Why does he dismiss each one?

1) _____

2) _____

Exemplars:

Possibilities Seb dismisses

- Seb looks around for trees that someone could jump from.
- Seb looks around; he notices one bush about fifteen feet away.
- Seb thinks a bird might have dropped the boot.
- Seb thinks about fairy tales, magical shoes, and giants.
- other relevant text-based response

Why he dismisses each one

- There are no trees close enough that someone could jump from.
- He decides that the bush is too small and too far away.
- Seb decides it would have to be a very large bird to have flown with a boot big enough to make this footprint.
- Seb is too old to believe in fairy tales.
- other relevant text-based response

Rubric:

2 points versions of two exemplars for each part

1 point versions of two exemplars for the first part

OR

version of one exemplar for the first part and a corresponding exemplar for the second part

0 points other

READING: Literary Response and Analysis

Students read and respond to grade-level-appropriate historically or culturally significant works of literature that vary in form, such as the short story, the novel, and the essay. Within texts, students must be able to identify and describe different types of fiction, to explain how character interactions and motives affect plot and resolution of conflicts, and to recognize the central idea or theme. Additionally, students must explain the effects of literary devices and critique the believability of stories. *ISTEP+* assesses the Literary Response and Analysis Standard through multiple-choice, constructed-response, and extended-response items that are based on passages.

Numbers 9 through 11 are based on “A Single Footprint in the Snow,” found on pages 13 and 14.

9 What kind of story is “A Single Footprint in the Snow”?

- ☐ science fiction
- ☐ folktale
- ☐ tall tale
- ☒ mystery

10 Who tells the story of “A Single Footprint in the Snow”?

- ☐ Seb
- ☒ an outside narrator
- ☐ Yonker
- ☐ a man named Newsom

11 Read this sentence from the story.

Newsom’s Meadow was a blank page that morning, pure and white.

The author uses the term “a blank page” to help the reader understand

- ☐ the time of day
- ☒ the way the meadow looked to Seb
- ☐ the way the meadow sounded to Seb
- ☐ the silence

Numbers 12 and 13 are based on “The Greatest Runner of All Time,” found on page 12.

12 The author MOST LIKELY wrote this article to show that the most important lesson Glenn Cunningham learned was to

- ☒ work hard to overcome obstacles and reach goals
- ☐ realize that sometimes goals need to be changed
- ☐ recognize inner talent in order to win competitions
- ☐ pursue childhood dreams regardless of criticism

13 Each of the words below can be used to describe Glenn Cunningham.

Identify the word that you think describes him BEST, and give TWO different examples from the article to support your choice.

determined

positive

inspiring

1) _____

2) _____

Exemplars:

determined

- Glenn was determined to prove that he could walk even after the doctors said he couldn't.
- Glenn showed that he was determined to be a successful runner by spending almost an hour warming up for a race.
- other relevant text-based response

positive

- Glenn was positive he could walk again even though doctors did not think he would.
- Even though it hurt Glenn to walk, he kept trying and stayed positive until he learned that it was easier for him to run.
- other relevant text-based response

inspiring

- People cheered for Glenn because he inspired them to keep trying to do their best.
- Glenn won many awards despite his injuries and inspired people to try their best as well.
- other relevant text-based response

Rubric:

2 points one word circled and versions of two corresponding exemplars

1 point one word circled and version of one corresponding exemplar

0 points other

NOTE: The student will earn only one point if he or she identifies two different words, even if a text-based example is provided for each word.

Numbers 14 and 15 are based on “A Single Footprint in the Snow,” found on pages 13 and 14.

14 This story takes place in a snow-covered meadow. Why is the setting of “A Single Footprint in the Snow” important to the story? Using TWO details from the story, explain why the setting is important.

1) _____

2) _____

Exemplars:

- The setting is important because a meadow covered in grass would not have shown a footprint well enough for Seb to see it.
- The setting lends itself to the title of the story, so it is important.
- If the setting were not in the middle of an open meadow, some of Seb’s explanations for how the footprint got there might have been reasonable.
- other relevant text-based response

NOTE: If student takes the position that the setting is not important, or that another setting would have been equally appropriate, and can provide suitable text-based evidence, student will receive full credit for response.

Rubric:

- 2 points** versions of two exemplars
- 1 point** version of one exemplar
- 0 points** other

15

Are Seb's actions believable as he tries to decide how the footprint got into the middle of Newsom's Meadow?



Write an essay in which you explain whether or not you think Seb's actions are believable. **In your essay, be sure to include at least TWO examples from the story that support your response.**

SCORED FOR READING

Exemplars:

Believable

- Seb bent down low to investigate the print closely.
- Seb noticed that the print looked slushy.
- Seb knew about the bird who stole a boot to build a nest.
- Seb dismissed the idea of a magical boot.
- Seb used logic to deduce that the print was the result of a joke.
- other relevant text-based response

Not believable

- Someone else would have gone to the nearby bush to investigate it.
- When Seb ran into Yonker, it would have been natural for him to question where Yonker had been (since Yonker was known for playing jokes).
- other relevant text-based response

Reading Comprehension Rubric:

2 points response takes a position and includes two supporting examples from the text

1 point response takes a position and includes one supporting example from the text

0 points other

ALSO SCORED FOR WRITING

Apply 4-point Writing Applications Rubric, Grades 6–12

Apply 4-point Language Conventions Rubric, Grades 6–8

Extended Response Writing Applications Overview

Grades 6–12

Score	Does the writing sample
4	<ul style="list-style-type: none"> • fully accomplish the task? • include many relevant ideas? • organize ideas logically? • exhibit very good word usage? • demonstrate very good writing technique? • demonstrate effective adjustment of language and tone to task and reader?
Score	Does the writing sample
3	<ul style="list-style-type: none"> • accomplish the task? • include relevant ideas? • organize ideas logically? • exhibit good word usage? • demonstrate good writing technique? • demonstrate an attempt to adjust language and tone to task and reader?
Score	Does the writing sample
2	<ul style="list-style-type: none"> • minimally accomplish the task? • include some relevant ideas? • exhibit an attempt to organize ideas logically? • exhibit ordinary word usage? • demonstrate adequate writing technique? • demonstrate an attempt to adjust language and tone to task and reader?
Score	Does the writing sample
1	<ul style="list-style-type: none"> • only partially accomplish or fail to accomplish the task? • include few relevant ideas? • exhibit a minimal attempt to organize ideas logically? • exhibit minimal word usage? • demonstrate minimal or less than minimal writing technique? • demonstrate language and tone that may be inappropriate to task and reader?

NOTE: This chart is only a brief summary of the score points. It is not appropriate to use this summary as the sole tool in scoring student papers. The more in-depth Extended Response Writing Applications Rubric is used for the actual scoring of *ISTEP+* student papers.

These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Extended Response Writing Applications Rubric

Grades 6–12

SCORE POINT 4	
A Score Point 4 paper represents a solid performance. It fully accomplishes the task.	
Ideas and Content	
<p>Does the writing sample fully accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • present a unifying theme or main idea without going off on tangents? • stay focused on topic and task? <p>Does the writing sample include many relevant ideas? Does it</p> <ul style="list-style-type: none"> • provide ample information and more than adequate supporting details that are developed? • explore many facets of the topic? 	
Organization	
<p>Are the ideas in the writing sample organized logically? Does the writing</p> <ul style="list-style-type: none"> • present a meaningful, cohesive whole with a beginning, a middle, and an end (i.e., include a solid introduction and conclusion)? • progress in an order that enhances meaning of text? • include smooth transitions (e.g., use topic sentences) between sentences and paragraphs to enhance meaning of text? (Writing may have an occasional lapse.) 	
Style	
<p>Does the writing sample exhibit very good word usage? Does it</p> <ul style="list-style-type: none"> • include vocabulary to make explanations detailed and precise, descriptions rich, and actions clear and vivid? • demonstrate control of vocabulary? <p>Does the writing sample demonstrate very good writing technique?</p> <ul style="list-style-type: none"> • Is the writing very fluent? • Does it include varied sentence patterns, including complex sentences? • Does it demonstrate use of writer's techniques (e.g., literary conventions such as imagery and dialogue and/or literary genres such as humor and suspense)? 	
Voice	
<p>Does the writing sample demonstrate effective adjustment of language and tone to task and reader? Does it</p> <ul style="list-style-type: none"> • exhibit appropriate register (e.g., formal, personal, or dialect) to suit task? • demonstrate a sense of audience? • exhibit an original perspective (e.g., authoritative, lively, and/or exciting)? 	

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Extended Response Writing Applications Rubric

Grades 6–12

SCORE POINT 3	
<p>A Score Point 3 paper represents a good performance. It accomplishes the task, but generally needs to exhibit more development, better organization, or a more sophisticated writing style to receive a higher score.</p>	
Ideas and Content	
<p>Does the writing sample accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • present a unifying theme or main idea? (Writing may include minor tangents.) • stay mostly focused on topic and task? <p>Does the writing sample include relevant ideas? Does it</p> <ul style="list-style-type: none"> • include sufficient information and supporting details? (Details may not be fully developed; ideas may be listed.) • explore some facets of the topic? 	
Organization	
<p>Are the ideas in the writing sample organized logically? Does the writing</p> <ul style="list-style-type: none"> • present a meaningful whole with a beginning, a middle, and an end despite an occasional lapse (e.g., a weak introduction or conclusion)? • generally progress in an order that enhances meaning of text? • include transitions between sentences and paragraphs to enhance meaning of text? (Transitions may be rough, although some topic sentences are included.) 	
Style	
<p>Does the writing sample exhibit good word usage? Does it</p> <ul style="list-style-type: none"> • include vocabulary that is appropriately chosen, with words that clearly convey the writer's meaning? • demonstrate control of basic vocabulary? <p>Does the writing sample demonstrate good writing technique?</p> <ul style="list-style-type: none"> • Is the writing fluent? • Does it exhibit some varied sentence patterns, including some complex sentences? • Does it demonstrate an attempt to use writer's techniques (e.g., literary conventions such as imagery and dialogue and/or literary genres such as humor and suspense)? 	
Voice	
<p>Does the writing sample demonstrate an attempt to adjust language and tone to task and reader? Does it</p> <ul style="list-style-type: none"> • generally exhibit appropriate register (e.g., formal, personal, or dialect) to suit task? (The writing may occasionally slip out of register.) • demonstrate some sense of audience? • attempt an original perspective? 	

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Extended Response Writing Applications Rubric

Grades 6–12

SCORE POINT 2
A Score Point 2 paper represents a performance that minimally accomplishes the task. Some elements of development, organization, and writing style are weak.
Ideas and Content
<p>Does the writing sample minimally accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • attempt a unifying theme or main idea? • stay somewhat focused on topic and task? <p>Does the writing sample include some relevant ideas? Does it</p> <ul style="list-style-type: none"> • include some information with only a few details, or list ideas without supporting details? • explore some facets of the topic?
Organization
<p>Is there an attempt to logically organize ideas in the writing sample? Does the writing</p> <ul style="list-style-type: none"> • have a beginning, a middle, or an end that may be weak or absent? • demonstrate an attempt to progress in an order that enhances meaning? (Progression of text may sometimes be unclear or out of order.) • demonstrate an attempt to include transitions? (Are some topic sentences used? Are transitions between sentences and paragraphs weak or absent?)
Style
<p>Does the writing sample exhibit ordinary word usage? Does it</p> <ul style="list-style-type: none"> • contain basic vocabulary, with words that are predictable and common? • demonstrate some control of vocabulary? <p>Does the writing sample demonstrate adequate writing technique?</p> <ul style="list-style-type: none"> • Is the writing generally fluent? • Does it contain mostly simple sentences (although there may be an attempt at more varied sentence patterns)? • Is it generally ordinary and predictable?
Voice
<p>Does the writing sample demonstrate an attempt to adjust language and tone to task and reader? Does it</p> <ul style="list-style-type: none"> • demonstrate a difficulty in establishing a register (e.g., formal, personal, or dialect)? • demonstrate little sense of audience? • generally lack an original perspective?

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Extended Response Writing Applications Rubric

Grades 6–12

SCORE POINT 1
<p>A Score Point 1 paper represents a performance that only partially accomplishes or fails to accomplish the task. Some responses may exhibit difficulty maintaining a focus. Others may be too brief to provide sufficient development of the topic or evidence of adequate organizational or writing style.</p>
Ideas and Content
<p>Does the writing sample only partially accomplish or fail to accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)?</p> <ul style="list-style-type: none"> • Writing may attempt a main idea, or the main idea may be difficult to discern. • Does the writing sometimes lose focus or ineffectively establish focus? <p>Does the writing sample include few relevant ideas?</p> <ul style="list-style-type: none"> • Does the writing sample include little information and few or no details? • Writing may explore only one or two facets of the topic.
Organization
<p>Is there a minimal attempt to logically organize ideas in the writing sample?</p> <ul style="list-style-type: none"> • Does the writing have only one or two of the three elements: beginning, middle, and end? • Is the writing sometimes difficult to follow? (Progression of text may be confusing, unclear, or difficult to discern.) • Are transitions weak or absent (e.g., few or no topic sentences)?
Style
<p>Does the writing sample exhibit minimal word usage? Does it</p> <ul style="list-style-type: none"> • contain limited vocabulary? (Words may be used incorrectly.) • demonstrate minimal or less than minimal control of vocabulary? <p>Does the writing sample demonstrate minimal or less than minimal writing technique?</p> <ul style="list-style-type: none"> • Does the writing exhibit some or little fluency? • Does it rely mostly on simple sentences or demonstrate problems with sentence patterns? • Is it often repetitive, predictable, or dull?
Voice
<p>Does the writing sample demonstrate language and tone that may be inappropriate to task and reader? Does it</p> <ul style="list-style-type: none"> • demonstrate use of a register inappropriate to the task (e.g., slang or dialect in a formal setting)? • demonstrate little or no sense of audience? • lack an original perspective?

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Language Conventions Rubric

Grades 6–8

Score	Does the writing sample exhibit a good command of language skills?
4	<p>In a Score Point 4 paper, there are no errors that impair the flow of communication. Errors are infrequent and will generally be of the first-draft variety; they have a minor impact on the overall communication.</p> <ul style="list-style-type: none"> • Do words have very few or no capitalization errors? • Do sentences have very few or no punctuation errors? • Do words have very few or no spelling errors? • Do sentences have very few or no grammar or word usage errors? • Writing has very few or no paragraphing errors. • Writing has very few or no run-on sentences or sentence fragments.
Score	Does the writing sample exhibit an adequate command of language skills?
3	<p>In a Score Point 3 paper, errors are occasional but do not impede the flow of communication; the writer's meaning is not seriously obscured by errors in language conventions.</p> <ul style="list-style-type: none"> • Do words have occasional capitalization errors? • Do sentences have occasional punctuation errors? • Do words have occasional spelling errors? • Do sentences have occasional grammar or word usage errors? • Writing may have occasional paragraphing errors. • Writing may have run-on sentences or sentence fragments.
Score	Does the writing sample exhibit a minimal command of language skills?
2	<p>In a Score Point 2 paper, errors are typically frequent and may cause the reader to stop and reread part of the writing. While some aspects of the writing may be more consistently correct than others, the existing errors do impair communication. With a little extra effort on the reader's part, it is still possible to discern most, if not all, of what the writer is trying to communicate.</p> <ul style="list-style-type: none"> • Do words have frequent capitalization errors? • Do sentences have frequent punctuation errors? • Do words have frequent spelling errors? • Do sentences have frequent grammar or word usage errors? • Writing may have errors in paragraphing, or paragraphing may be missing. • Writing is likely to have run-on sentences or sentence fragments.
Score	Does the writing sample exhibit a less than minimal command of language skills?
1	<p>In a Score Point 1 paper, errors are serious and numerous; they often cause the reader to struggle to discern the writer's meaning. Errors are frequently of a wide variety. There may be sections where it is impossible to ascertain what the writer is attempting to communicate.</p> <ul style="list-style-type: none"> • Do words have many capitalization errors? • Do sentences have many punctuation errors? • Do words have many spelling errors? • Do sentences have many grammar and word usage errors? • Writing may have errors in paragraphing, or paragraphing may be missing. • Writing is likely to have run-on sentences or sentence fragments.

NOTE: These rubrics are applied holistically, with no element of the rubric intended to supersede any other element. The variety and proportion of errors in relation to the length of the writing sample are considered. A very brief paper consisting of two or three sentences may receive no more than 2 score points.

These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–8.

WRITING: Writing Process

Students write clear, coherent, and focused narratives and essays, using transitions between sentences and providing support for statements and claims. In addition, students must also give credit for both quoted and paraphrased information. After writing, students are expected to proofread, edit, and revise their writing. The *ISTEP+* assesses a student's ability to meet selected skills in this standard through use of targeted items as well as by application of the Language Conventions Rubric (see page 29) to extended student writing.

Read this paragraph and use it to do Numbers 16 through 18.

¹Moles are remarkable little creatures. ²A mole can dig as much as three feet of tunnel in one hour. ³A large part of a mole's life is spent running up and down its own private maze of tunnels, day and night. ⁴It is running up and down searching for food. ⁵A mole's diet consists of earthworms, ants, beetles, centipedes, and any other insect the search produces. ⁶Insects are an important part of the food chain. ⁷Because it eats pests that ruin the flowers and vegetables in the garden, a mole can be a gardener's friend.

16 What is the BEST way to combine Sentences 3 and 4?

- ☒ A large part of a mole's life is spent running up and down its own private maze of tunnels, day and night, searching for food.
- ☐ Searching for food, a large part of a mole's life is spent running up and down its own private maze of tunnels, day and night.
- ☐ A large part of a mole's life, searching for food, is spent day and night running up and down its own private maze of tunnels.
- ☐ Searching day and night for food, running up and down its own private maze of tunnels, a large part of a mole's life is spent.

17 Which sentence does NOT belong in the paragraph?

- ☐ Sentence 2
- ☐ Sentence 5
- ☒ Sentence 6
- ☐ Sentence 7

18 Maria wants to add this sentence to her paragraph on moles.

They have velvety fur and very small eyes.

Where would this sentence BEST fit in the paragraph?

- ☐ before Sentence 1
- ☒ between Sentences 1 and 2
- ☐ between Sentences 5 and 6
- ☐ after Sentence 7

WRITING: Writing Applications

In response to a writing prompt, students must organize their ideas and produce an original story or essay. The type of writing required for *ISTEP+* rotates among the following forms: narrative (story), expository (informational), persuasive, and descriptive.

Each type of writing has specific characteristics that the student is expected to include. For example, a student's narrative essay should advance a plot with precise details about settings, characters, and events, and should also include a beginning, conflict, rising action, climax, resolution, and point of view.

Student writing is evaluated according to the six-point rubric on pages 34 through 39. Students' ability to use Standard English in their writing is assessed using the four-point Language Conventions Rubric on page 40.

19

Someone You Would Like to Meet

Read the writing prompt below and complete the writing activity.

Think of a person you would like to meet in your lifetime. It might be someone from the past, the present, or the future.

Write a fictional story in which you describe meeting this person. In your story, include details about where you meet this person, what happens during the meeting, and what you talk about with this person.

Be sure to include

- a description of the person you would like to meet
- where and when the meeting takes place
- what happens during this meeting
- what you talk about with this person
- details to make your story interesting
- a beginning, a middle, and an end to your story

Writing Applications Overview

Grades 6–12

Score Level	Ideas and Content	Organization
	Does the writing sample	Does the writing sample
6	<ul style="list-style-type: none"> fully accomplish the task? include thorough, relevant, and complete ideas? 	<ul style="list-style-type: none"> organize ideas logically?
5	<ul style="list-style-type: none"> fully accomplish the task? include many relevant ideas? 	<ul style="list-style-type: none"> organize ideas logically?
4	<ul style="list-style-type: none"> accomplish the task? include relevant ideas? 	<ul style="list-style-type: none"> organize ideas logically?
3	<ul style="list-style-type: none"> minimally accomplish the task? include some relevant ideas? 	<ul style="list-style-type: none"> exhibit an attempt to organize ideas logically?
2	<ul style="list-style-type: none"> only partially accomplish the task? include few relevant ideas? 	<ul style="list-style-type: none"> exhibit a minimal attempt to organize ideas logically?
1	<ul style="list-style-type: none"> fail to accomplish the task? include very few relevant ideas? 	<ul style="list-style-type: none"> organize ideas illogically?

NOTE: Chart continues on page 33.

This chart is only a brief summary of the score points. It is not appropriate to use this summary as the sole tool in scoring student papers. The more in-depth Writing Applications Rubric is used for the actual scoring of *ISTEP+* student papers.

These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Writing Applications Overview (cont.)

Grades 6–12

Score Level	Style	Voice
	Does the writing sample	Does the writing sample
6	<ul style="list-style-type: none"> exhibit exceptional word usage? demonstrate exceptional writing technique? 	<ul style="list-style-type: none"> demonstrate effective adjustment of language and tone to task and reader?
5	<ul style="list-style-type: none"> exhibit very good word usage? demonstrate very good writing technique? 	<ul style="list-style-type: none"> demonstrate effective adjustment of language and tone to task and reader?
4	<ul style="list-style-type: none"> exhibit good word usage? demonstrate good writing technique? 	<ul style="list-style-type: none"> demonstrate an attempt to adjust language and tone to task and reader?
3	<ul style="list-style-type: none"> exhibit ordinary word usage? demonstrate average writing technique? 	<ul style="list-style-type: none"> demonstrate an attempt to adjust language and tone to task and reader?
2	<ul style="list-style-type: none"> exhibit minimal word usage? demonstrate minimal writing technique? 	<ul style="list-style-type: none"> demonstrate language and tone that may be inappropriate to task and reader?
1	<ul style="list-style-type: none"> exhibit less than minimal word usage? demonstrate less than minimal writing technique? 	<ul style="list-style-type: none"> demonstrate language and tone that may be inappropriate to task and reader?

Writing Applications Rubric

Grades 6–12

SCORE POINT 6
<p>A Score Point 6 paper is rare. It fully accomplishes the task in a thorough and insightful manner and has a distinctive quality that sets it apart as an outstanding performance.</p>
<p>Ideas and Content</p> <p>Does the writing sample fully accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • present a unifying theme or main idea without going off on tangents? • stay completely focused on topic and task? <p>Does the writing sample include thorough, relevant, and complete ideas? Does it</p> <ul style="list-style-type: none"> • include in-depth information and exceptional supporting details that are fully developed? • fully explore many facets of the topic?
<p>Organization</p> <p>Are the ideas in the writing sample organized logically? Does the writing</p> <ul style="list-style-type: none"> • present a meaningful, cohesive whole with a beginning, a middle, and an end (i.e., include an inviting introduction and a strong conclusion)? • progress in an order that enhances meaning? • include smooth transitions between ideas, sentences, and paragraphs to enhance meaning of text (i.e., have a clear connection of ideas and use topic sentences)?
<p>Style</p> <p>Does the writing sample exhibit exceptional word usage? Does it</p> <ul style="list-style-type: none"> • include vocabulary to make explanations detailed and precise, descriptions rich, and actions clear and vivid (e.g., varied word choices, action words, appropriate modifiers, sensory details)? • demonstrate control of a challenging vocabulary? <p>Does the writing sample demonstrate exceptional writing technique?</p> <ul style="list-style-type: none"> • Is the writing exceptionally fluent? • Does it include varied sentence patterns, including complex sentences? • Does it demonstrate use of writer’s techniques (e.g., literary conventions such as imagery and dialogue and/or literary genres such as humor and suspense)?
<p>Voice</p> <p>Does the writing sample demonstrate effective adjustment of language and tone to task and reader? Does it</p> <ul style="list-style-type: none"> • exhibit appropriate register (e.g., formal, personal, or dialect) to suit task? • demonstrate a strong sense of audience? • exhibit an original perspective (e.g., authoritative, lively, and/or exciting)?

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Writing Applications Rubric

Grades 6–12

SCORE POINT 5
<p>A Score Point 5 paper represents a solid performance. It fully accomplishes the task, but lacks the overall level of sophistication and consistency of a Score Point 6 paper.</p>
Ideas and Content
<p>Does the writing sample fully accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • present a unifying theme or main idea without going off on tangents? • stay focused on topic and task? <p>Does the writing sample include many relevant ideas? Does it</p> <ul style="list-style-type: none"> • provide in-depth information and more than adequate supporting details that are developed? • explore many facets of the topic?
Organization
<p>Are the ideas in the writing sample organized logically? Does the writing</p> <ul style="list-style-type: none"> • present a meaningful, cohesive whole with a beginning, a middle, and an end (i.e., include a solid introduction and conclusion)? • progress in an order that enhances meaning of text? • include smooth transitions (e.g., use topic sentences) between sentences and paragraphs to enhance meaning of text? (Writing may have an occasional lapse.)
Style
<p>Does the writing sample exhibit very good word usage? Does it</p> <ul style="list-style-type: none"> • include vocabulary to make explanations detailed and precise, descriptions rich, and actions clear and vivid? • demonstrate control of vocabulary? <p>Does the writing sample demonstrate very good writing technique?</p> <ul style="list-style-type: none"> • Is the writing very fluent? • Does it include varied sentence patterns, including complex sentences? • Does it demonstrate use of writer's techniques (e.g., literary conventions such as imagery and dialogue and/or literary genres such as humor and suspense)?
Voice
<p>Does the writing sample demonstrate effective adjustment of language and tone to task and reader? Does it</p> <ul style="list-style-type: none"> • exhibit appropriate register (e.g., formal, personal, or dialect) to suit task? • demonstrate a sense of audience? • exhibit an original perspective (e.g., authoritative, lively, and/or exciting)?

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Writing Applications Rubric

Grades 6–12

SCORE POINT 4	
<p>A Score Point 4 paper represents a good performance. It accomplishes the task, but generally needs to exhibit more development, better organization, or a more sophisticated writing style to receive a higher score.</p>	
Ideas and Content	
<p>Does the writing sample accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • present a unifying theme or main idea? (Writing may include minor tangents.) • stay mostly focused on topic and task? <p>Does the writing sample include relevant ideas? Does it</p> <ul style="list-style-type: none"> • include sufficient information and supporting details? (Details may not be fully developed; ideas may be listed.) • explore some facets of the topic? 	
Organization	
<p>Are the ideas in the writing sample organized logically? Does the writing</p> <ul style="list-style-type: none"> • present a meaningful whole with a beginning, a middle, and an end despite an occasional lapse (e.g., a weak introduction or conclusion)? • generally progress in an order that enhances meaning of text? • include transitions between sentences and paragraphs to enhance meaning of text? (Transitions may be rough, although some topic sentences are included.) 	
Style	
<p>Does the writing sample exhibit good word usage? Does it</p> <ul style="list-style-type: none"> • include vocabulary that is appropriately chosen, with words that clearly convey the writer's meaning? • demonstrate control of basic vocabulary? <p>Does the writing sample demonstrate good writing technique?</p> <ul style="list-style-type: none"> • Is the writing fluent? • Does it exhibit some varied sentence patterns, including some complex sentences? • Does it demonstrate an attempt to use writer's techniques (e.g., literary conventions such as imagery and dialogue and/or literary genres such as humor and suspense)? 	
Voice	
<p>Does the writing sample demonstrate an attempt to adjust language and tone to task and reader? Does it</p> <ul style="list-style-type: none"> • generally exhibit appropriate register (e.g., formal, personal, or dialect) to suit task? (The writing may occasionally slip out of register.) • demonstrate some sense of audience? • attempt an original perspective? 	

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Writing Applications Rubric

Grades 6–12

SCORE POINT 3	
A Score Point 3 paper represents a performance that minimally accomplishes the task. Some elements of development, organization, and writing style are weak.	
Ideas and Content	
<p>Does the writing sample minimally accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • attempt a unifying theme or main idea? • stay somewhat focused on topic and task? <p>Does the writing sample include some relevant ideas? Does it</p> <ul style="list-style-type: none"> • include some information with only a few details, or list ideas without supporting details? • explore some facets of the topic? 	
Organization	
<p>Is there an attempt to logically organize ideas in the writing sample? Does the writing</p> <ul style="list-style-type: none"> • have a beginning, a middle, or an end that may be weak or absent? • demonstrate an attempt to progress in an order that enhances meaning? (Progression of text may sometimes be unclear or out of order.) • demonstrate an attempt to include transitions? (Are some topic sentences used? Are transitions between sentences and paragraphs weak or absent?) 	
Style	
<p>Does the writing sample exhibit ordinary word usage? Does it</p> <ul style="list-style-type: none"> • contain basic vocabulary, with words that are predictable and common? • demonstrate some control of vocabulary? <p>Does the writing sample demonstrate average writing technique?</p> <ul style="list-style-type: none"> • Is the writing generally fluent? • Does it contain mostly simple sentences (although there may be an attempt at more varied sentence patterns)? • Is it generally ordinary and predictable? 	
Voice	
<p>Does the writing sample demonstrate an attempt to adjust language and tone to task and reader? Does it</p> <ul style="list-style-type: none"> • demonstrate a difficulty in establishing a register (e.g., formal, personal, or dialect)? • demonstrate little sense of audience? • generally lack an original perspective? 	

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Writing Applications Rubric

Grades 6–12

SCORE POINT 2
<p>A Score Point 2 paper represents a performance that only partially accomplishes the task. Some responses may exhibit difficulty maintaining a focus. Others may be too brief to provide sufficient development of the topic or evidence of adequate organizational or writing style.</p>
<p>Ideas and Content</p> <p>Does the writing sample only partially accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Does it</p> <ul style="list-style-type: none"> • attempt a main idea? • sometimes lose focus or ineffectively display focus? <p>Does the writing sample include few relevant ideas? Does it</p> <ul style="list-style-type: none"> • include little information and few or no details? • explore only one or two facets of the topic?
<p>Organization</p> <p>Is there a minimal attempt to logically organize ideas in the writing sample?</p> <ul style="list-style-type: none"> • Does the writing have only one or two of the three elements: beginning, middle, and end? • Is the writing sometimes difficult to follow? (Progression of text may be confusing or unclear.) • Are transitions weak or absent (e.g., few or no topic sentences)?
<p>Style</p> <p>Does the writing sample exhibit minimal word usage? Does it</p> <ul style="list-style-type: none"> • contain limited vocabulary? (Some words may be used incorrectly.) • demonstrate minimal control of vocabulary? <p>Does the writing sample demonstrate minimal writing technique?</p> <ul style="list-style-type: none"> • Does the writing exhibit some fluency? • Does it rely mostly on simple sentences? • Is it often repetitive, predictable, or dull?
<p>Voice</p> <p>Does the writing sample demonstrate language and tone that may be inappropriate to task and reader? Does it</p> <ul style="list-style-type: none"> • demonstrate use of a register inappropriate to the task (e.g., slang or dialect in a formal setting)? • demonstrate little or no sense of audience? • lack an original perspective?

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Writing Applications Rubric

Grades 6–12

SCORE POINT 1
<p>A Score Point 1 paper represents a performance that fails to accomplish the task. It exhibits considerable difficulty in areas of development, organization, and writing style. The writing is generally either very brief or rambling and repetitive, sometimes resulting in a response that may be difficult to read or comprehend.</p>
Ideas and Content
<p>Does the writing sample fail to accomplish the task (e.g., support an opinion, summarize, tell a story, or write an article)? Is it</p> <ul style="list-style-type: none"> • difficult for the reader to discern the main idea? • too brief or too repetitive to establish or maintain a focus? <p>Does the writing sample include very few relevant ideas?</p> <ul style="list-style-type: none"> • Does it include little information with few or no details or unrelated details? • Is it unsuccessful in attempts to explore any facets of the prompt?
Organization
<p>Are the ideas in the writing sample organized illogically?</p> <ul style="list-style-type: none"> • Does it have only one or two of the three elements: beginning, middle, or end? • Is it difficult to follow, with the order possibly difficult to discern? • Are transitions weak or absent (e.g., without topic sentences)?
Style
<p>Does the writing sample exhibit less than minimal word usage? Does it</p> <ul style="list-style-type: none"> • contain limited vocabulary, with many words used incorrectly? • demonstrate minimal or less than minimal control of vocabulary? <p>Does the writing sample demonstrate less than minimal writing technique? Does it</p> <ul style="list-style-type: none"> • lack fluency? • demonstrate problems with sentence patterns? • consist of writing that is flat and lifeless?
Voice
<p>Does the writing sample demonstrate language and tone that may be inappropriate to task and reader? Does it</p> <ul style="list-style-type: none"> • demonstrate difficulty in choosing an appropriate register? • demonstrate a lack of a sense of audience? • lack an original perspective?

NOTE: These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–12.

Language Conventions Rubric

Grades 6–8

Score	Does the writing sample exhibit a good command of language skills?
4	<p>In a Score Point 4 paper, there are no errors that impair the flow of communication. Errors are infrequent and will generally be of the first-draft variety; they have a minor impact on the overall communication.</p> <ul style="list-style-type: none"> • Do words have very few or no capitalization errors? • Do sentences have very few or no punctuation errors? • Do words have very few or no spelling errors? • Do sentences have very few or no grammar or word usage errors? • Writing has very few or no paragraphing errors. • Writing has very few or no run-on sentences or sentence fragments.
Score	Does the writing sample exhibit an adequate command of language skills?
3	<p>In a Score Point 3 paper, errors are occasional but do not impede the flow of communication; the writer's meaning is not seriously obscured by errors in language conventions.</p> <ul style="list-style-type: none"> • Do words have occasional capitalization errors? • Do sentences have occasional punctuation errors? • Do words have occasional spelling errors? • Do sentences have occasional grammar or word usage errors? • Writing may have occasional paragraphing errors. • Writing may have run-on sentences or sentence fragments.
Score	Does the writing sample exhibit a minimal command of language skills?
2	<p>In a Score Point 2 paper, errors are typically frequent and may cause the reader to stop and reread part of the writing. While some aspects of the writing may be more consistently correct than others, the existing errors do impair communication. With a little extra effort on the reader's part, it is still possible to discern most, if not all, of what the writer is trying to communicate.</p> <ul style="list-style-type: none"> • Do words have frequent capitalization errors? • Do sentences have frequent punctuation errors? • Do words have frequent spelling errors? • Do sentences have frequent grammar or word usage errors? • Writing may have errors in paragraphing, or paragraphing may be missing. • Writing is likely to have run-on sentences or sentence fragments.
Score	Does the writing sample exhibit a less than minimal command of language skills?
1	<p>In a Score Point 1 paper, errors are serious and numerous; they often cause the reader to struggle to discern the writer's meaning. Errors are frequently of a wide variety. There may be sections where it is impossible to ascertain what the writer is attempting to communicate.</p> <ul style="list-style-type: none"> • Do words have many capitalization errors? • Do sentences have many punctuation errors? • Do words have many spelling errors? • Do sentences have many grammar and word usage errors? • Writing may have errors in paragraphing, or paragraphing may be missing. • Writing is likely to have run-on sentences or sentence fragments.

NOTE: These rubrics are applied holistically, with no element of the rubric intended to supersede any other element. The variety and proportion of errors in relation to the length of the writing sample are considered. A very brief paper consisting of two or three sentences may receive no more than 2 score points.

These scoring rubrics are used for students tested on the fall *ISTEP+* assessment in Grades 6–8.

WRITING: Written English Language Conventions

Students write using Standard English conventions appropriate to their grade level. The student's ability to write clear and correct English is assessed by multiple-choice items as well as by application of the four-point Language Conventions Rubric to extended student writing. Specific skills assessed by multiple-choice items may include correct and appropriate use of modifiers, infinitives, participles, prefixes and suffixes, pronoun reference, active voice, parts of speech, sentence structure, and punctuation.

20 Choose the word or group of words that **BEST** completes the sentence.

On our trail ride last month, we also _____ horses up a steep trail to reach an open meadow covered with grasses and wildflowers.

- ☐ will have ridden
- ☒ rode
- ☐ have been riding
- ☐ ride

21 Choose the sentence that uses punctuation correctly.

- ☐ The Black Forest is in Germany, and covers more than 2,000 square miles.
- ☒ During most of the winter, the trees, valleys, and hills of the Black Forest are covered in snow.
- ☐ Wild boar, badgers, and foxes, all live within the forest.
- ☐ Certain areas have been set aside so, humans can observe the animals without disturbing them.

22 Choose the sentence that is written correctly and shows the correct capitalization and punctuation.

- ☒ The Coast Starlight train travels from Seattle, Washington, to Los Angeles, California.
- ☐ As it moves south, the starlight stops in Portland, Eugene, and Klamath Falls, Oregon.
- ☐ Sacramento and Oakland are the Stops in northern California.
- ☐ Before arriving in Los Angeles, it pauses in the Cities of San Luis Obispo and Santa Barbara long enough to let passengers on and off.

23 Which of the following underlined words is spelled correctly?

- ☐ I was pleased to make Ms. Ramirez's acquaintence.
- ☐ Tim was very embarassed that he failed the math quiz.
- ☒ It is always important to be courteous to others at the theater.
- ☐ Tigers have been known to prowel at night for food.



Mathematics

GRADE 6 INDIANA ACADEMIC STANDARDS

- ☐ **Number Sense**
Students compare and order positive and negative integers, decimals, fractions, and mixed numbers. They find multiples and factors.
- ☐ **Computation**
Students solve problems involving addition, subtraction, multiplication, and division of integers. They solve problems involving fractions, decimals, ratios, proportions, and percentages.
- ☐ **Algebra and Functions**
Students write verbal expressions and sentences as algebraic expressions and equations. They evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results. They investigate geometric relationships and describe them algebraically.
- ☐ **Geometry**
Students identify, describe, and classify the properties of plane and solid geometric shapes and the relationships between them.
- ☐ **Measurement**
Students deepen their understanding of the measurement of plane and solid shapes and use this understanding to solve problems. They calculate with temperature and money, and choose appropriate units of measure in other areas.
- ☐ **Data Analysis and Probability**
Students compute and analyze statistical measures for data sets. They determine theoretical and experimental probabilities and use them to make predictions about events.
- ☐ **Problem Solving**
Students make decisions about how to approach problems and communicate their ideas. Students use strategies, skills, and concepts in finding and communicating solutions to problems. Students determine when a solution is complete and reasonable and move beyond a particular problem by generalizing to other situations.

Calculator Usage

Calculators are not required on *ISTEP+*. All items in *ISTEP+* can be solved without the use of a calculator. Calculators are allowed on indicated sections of the Mathematics Assessment.

General directions for calculator usage on *ISTEP+*

- Calculators may be used on only those sections of *ISTEP+* where calculator use is designated (unless otherwise stated in a student's IEP, in which case the student would be allowed to use a calculator on the entire test).
- Sharing calculators is **not** allowed.
- Students are to use calculators with which they are familiar.
- Where calculator use is designated, students are to use their best judgment as to when to use the calculator. The calculator is meant to aid in problem solving, not get in the way.
- For open-ended items, students should write down the process for solving the problem, then use the calculator to do the actual computation.
- Students will be allowed to use their own calculator unless it is on the **Not permitted on *ISTEP+*** list. To see the list of calculators that are not permitted, look on the *ISTEP+* InfoCenter located at www.doe.state.in.us/istep.

Calculators are not allowed on some items in *ISTEP+*. These items are similar to items in this sampler which are designated by the following icon:



The items that are **not** designated as No Calculator items in this sampler may appear on either the calculator or non-calculator sections of the Mathematics Assessment.

Mathematics Reference Sheet

The *ISTEP+* Grades 7 and 8 Mathematics Reference Sheet is located on pages 63 and 64 after the sample items. The reference sheet is always available to students when they take the tests.

When the reference sheet icon, shown below, appears with an item, it indicates to the student that there is information on the reference sheet that will be useful for solving the item.



Sample Test Items

Number Sense

This standard assesses a student's ability to understand and use various aspects of number theory, including absolute value, equivalent forms of numbers, number lines, and common multiples and factors.

1 Which of the following is equivalent to $\frac{2}{5}$?

- ☐ 4%
- ☐ 10%
- ☐ 25%
- ☒ 40%

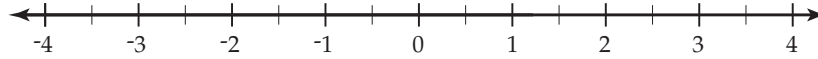
2 Which is the greatest common factor of 48 and 72?

- ☐ 6
- ☐ 8
- ☐ 12
- ☒ 24

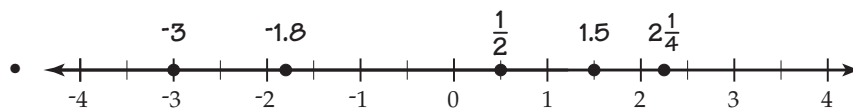
3 Look at the numbers below.

$$-1.8, \frac{1}{2}, 2\frac{1}{4}, 1.5, -3$$

Plot the point for each of these numbers on the number line below. Write the number above each point.



Exemplary Response:



NOTE: The point for -1.8 need only be between -1.5 and -2.

The point for $2\frac{1}{4}$ need only be between 2 and $2\frac{1}{2}$.

Rubric:

2 points Exemplary response

1 point Three or four correctly plotted and labeled points

OR

Points correctly plotted but not labeled

0 points Other

Computation

This standard assesses a student's ability to compute with integers, fractions, decimals, percents, ratios, and proportions.

4 $-8 \times 6 =$

- ☒ -48
- ☐ -2
- ☐ 14
- ☐ 48

5 Barbara bought a box of 36 cookies. She gave $\frac{2}{3}$ of the cookies to friends.

How many cookies did Barbara have left?

- ☒ 12 cookies
- ☐ 18 cookies
- ☐ 24 cookies
- ☐ 54 cookies

6 Andy can buy 6 used CDs for \$40.00.

How many used CDs can Andy buy for \$60.00 ?

			9	
	0	0	0	
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

- 7** Robert ate dinner at a restaurant. The cost of the dinner was \$17.80, not including the tip. Robert gave the server a tip that was 15% of the cost of his dinner.

How much money did Robert give as a tip?

Show All Work

Answer \$ _____

Exemplary Response:

- \$2.67

Sample Process:

- $17.80 \times 0.15 = \$2.67$

OR

- Other valid process

Rubric:

- 2 points** Exemplary response
- 1 point** Correct complete process; error in computation
- 0 points** Other

Algebra and Functions

This standard assesses a student's ability to express relationships using algebraic terminology, formulas, expressions, equations, inequalities, and graphs.

8 What is the value of x in the equation $x + 8 = 16$?

- ☐ 2
- ☒ 8
- ☐ 10
- ☐ 24

9 Simplify: $12 \div 2 + 4 \times 6 - 5$

- ☐ 6
- ☐ 7
- ☒ 25
- ☐ 55

10 Travis rode his bicycle for $2\frac{1}{2}$ hours at an average rate of 24 miles per hour.



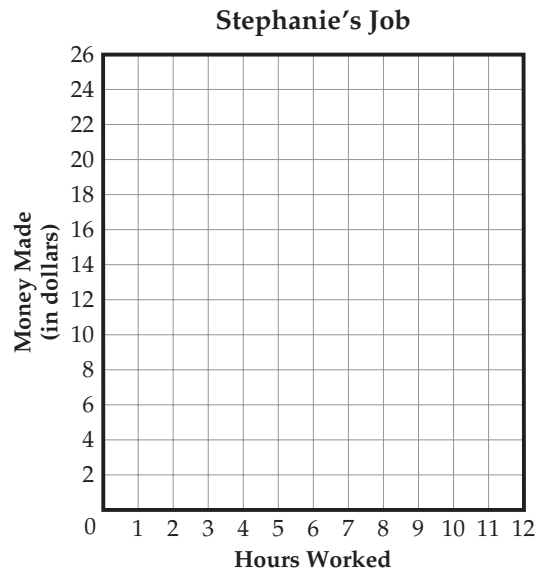
How many miles did Travis ride?

			60		
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

- 11** Stephanie earns \$6 per hour at her job. On the line below, write an equation that can be used to find the amount of money (y) that Stephanie makes in x hours.

Equation _____

Now graph at least three points on the grid below that fit the equation you wrote.



How much money will Stephanie make in 2 hours?

Answer \$ _____

Exemplary Response:

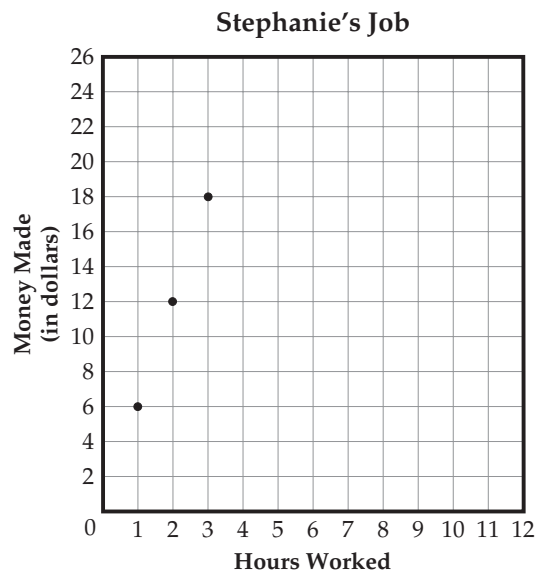
- $y = 6x$

OR

- Other valid equation

AND

-



AND

- \$12

NOTE: Other variables may be used.

The equation must contain an equal sign.

Award 1 point for a correct plot based on an incorrect equation.

Award 1 point for a correct answer based on an incorrect equation.

Award 1 point for a correct answer based on an incorrect plot.

Rubric:

3 points Exemplary response

2 points Two correct components

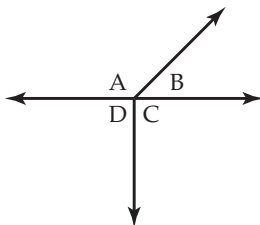
1 point One correct component

0 points Other

Geometry

This standard assesses a student's ability to understand and use the principles of two-dimensional geometric angles and figures.

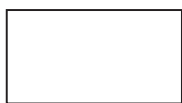
- 12** Look at the diagram below.



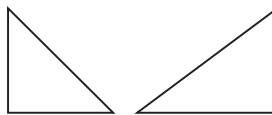
Which of the following describes the relationship of $\angle A$ and $\angle D$?

- ☒ adjacent
- ☐ complementary
- ☐ supplementary
- ☐ vertical

- 13** Which of the following shows two figures that are similar but not congruent?



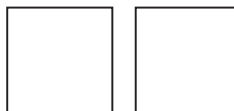
☐



☐



☒



☐

- 14** Gina drew a triangle. One of the angles measures 40° , and another angle measures 70° .

What is the measure of the third angle?

Show All Work

Answer _____ $^\circ$

Exemplary Response:

- 70°

Sample Process:

- $70^\circ + 40^\circ = 110^\circ$
 $180^\circ - 110^\circ = 70^\circ$

OR

- Other valid process

Rubric:

- 2 points** Exemplary response
- 1 point** Correct complete process; error in computation
- 0 points** Other

Measurement

This standard assesses a student's ability to compare units of measure; compute circumference, area, surface area, and volume; convert temperatures from one scale to another; and compute with money in decimal notation.

15 What is the area, in square centimeters, of a circle with a diameter of 6 centimeters?



- ☐ 9.42 square centimeters
- ☐ 18.84 square centimeters
- ☒ 28.26 square centimeters
- ☐ 56.52 square centimeters

16 Miguel and 4 friends paid a total of \$23.50 for a pizza. Each person paid an equal amount.

How much did each person pay?

- ☐ \$4.00
☒ \$4.70
☐ \$5.00
☐ \$5.70

17 The temperature outside is 41°F .

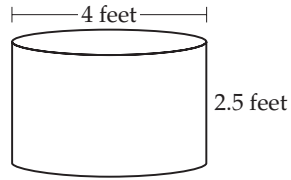


What is this temperature in degrees CELSIUS?

5				
	1	1	1	
•	•	•	•	•
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
•	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

18

The diagram below shows a cylindrical barrel that has a height of 2.5 feet and a diameter of 4 feet.



What is the volume, in cubic feet, of the barrel?

Show All Work

Answer _____ cubic feet

Exemplary Response:

- 31.4 cubic feet

Sample Process:

- $V = \pi r^2 h$
 $= 3.14 \times 2 \times 2 \times 2.5$
 $= 31.4$

OR

- Other valid process

Rubric:

- 2 points** Exemplary response
- 1 point** Correct complete process; error in computation
- 0 points** Other

Data Analysis and Probability

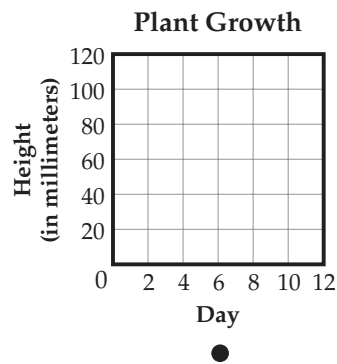
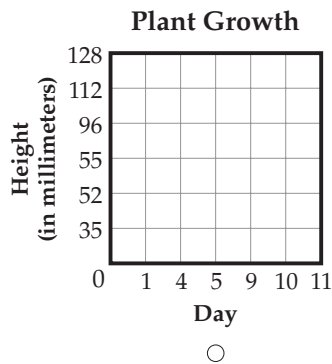
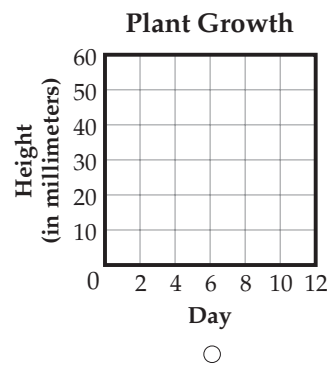
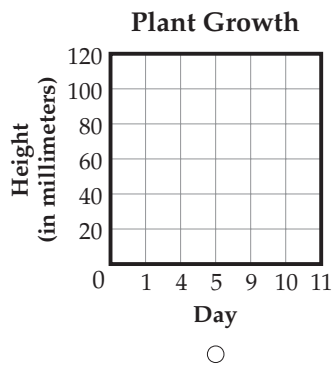
This standard assesses a student's ability to organize, display, and represent data, and to determine probabilities.

- 19** Maria measured the height of a bean plant over a period of ten days. Her data are shown in the table below.

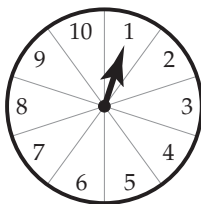
Plant Growth

Day	Height (in millimeters)
1	35
4	52
5	55
9	96
10	112

Which of the following shows the best axis scales to use to graph the data?



- 20** Elaine is playing a game with the spinner shown below.

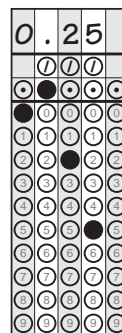


What is the probability that Elaine spins a number GREATER than 7?

- ☒ $\frac{3}{10}$
☐ $\frac{4}{10}$
☐ $\frac{6}{10}$
☐ $\frac{7}{10}$

- 21** Ryan and Leonard each flipped a quarter.

What is the probability that each boy's quarter landed heads up?



- 22** The manager of Marquee Music kept track of how many customers used gift certificates from January 1 to January 20. His data are shown below.

3 8 15 12 5 4 7 8 10 13
11 6 7 11 6 14 9 5 9 1

Use the data to complete the frequency table below.

Gift Certificates

Number of Customers	Frequency
1–3	
4–6	
7–9	
10–12	
13–15	

Exemplary Response:

- Gift Certificates**

Number of Customers	Frequency
1–3	2
4–6	5
7–9	6
10–12	4
13–15	3

Rubric:

- 2 points** Exemplary response
- 1 point** Three or four correct entries
- 0 points** Other

Problem Solving

This standard assesses a student's ability to select appropriate problem-solving strategies, to communicate ideas, and to justify reasoning.

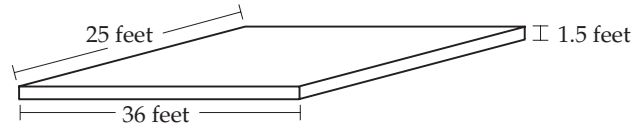
- 23** Linda participated in a walkathon to raise money for the school band. She walked 93 laps around the school track. Each lap was $\frac{1}{4}$ mile. Linda had \$2.00 pledged for every MILE she walked.

How much money did Linda raise?

- ☐ \$23.25
- ☒ \$46.50
- ☐ \$186.00
- ☐ \$744.00

24

Matt's Concrete Service is pouring a foundation for a house, as shown in the diagram below.



The concrete service will mix 10% more concrete than the volume of the foundation.

How many cubic feet of concrete will be mixed?

Show All Work

Answer _____ cubic feet

Exemplary Response:

- 1,485 cubic feet

AND

- Correct complete process

Sample Process:

- Volume: $36 \times 25 \times 1.5 = 1,350$
Extra: $1,350 \times 1.1 = 1,485$

OR

- Other valid process

Rubric:

3 points Exemplary response

2 points Correct answer only

OR

Correct complete process; error in computation

1 point Correct process for finding the volume of the foundation

0 points Other

25



Meg has a square horse corral. Each side of the corral is 10 meters long. Jody has a circular horse corral with a diameter of 10 meters. How many square meters larger than Jody's corral is Meg's corral?

Show All Work

Answer _____ square meters

Exemplary Response:

- 21.5 square meters

AND

- Correct complete process

Sample Process:

$$\begin{aligned} A_{\text{square}} &= s \times s \\ &= 10 \times 10 \\ &= 100 \end{aligned}$$

$$\begin{aligned} A_{\text{circle}} &= \pi r^2 \\ &= 3.14 \times 5 \times 5 \\ &= 78.5 \end{aligned}$$

$$\begin{aligned} A_{\text{difference}} &= A_{\text{square}} - A_{\text{circle}} \\ &= 100 - 78.5 \\ &= 21.5 \end{aligned}$$

OR

- Other valid process

Rubric:

2 points Exemplary response

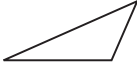

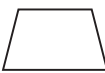


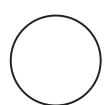
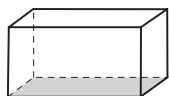
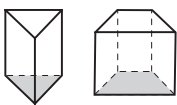
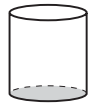
1 point Correct answer only

OR

Correct complete process; error in computation

0 points Other

ISTEP+ Grades 7 and 8 Mathematics Reference Sheet

Shape		Formulas for Area (A) and Circumference (C)
Triangle		$A = \frac{1}{2}bh = \frac{1}{2} \times \text{base} \times \text{height}$
Rectangle		$A = lw = \text{length} \times \text{width}$
Trapezoid		$A = \frac{1}{2}(b_1 + b_2)h = \frac{1}{2} \times \text{sum of bases} \times \text{height}$
Parallelogram		$A = bh = \text{base} \times \text{height}$
Square		$A = s^2 = \text{side} \times \text{side}$
Circle		$A = \pi r^2 = \pi \times \text{square of radius}$ $C = 2\pi r = 2 \times \pi \times \text{radius}$ $\pi \approx 3.14 \text{ or } \frac{22}{7}$
Figure		Formulas for Volume (V) and Surface Area (SA)
Rectangular Prism		$V = lwh = \text{length} \times \text{width} \times \text{height}$ $SA = 2lw + 2hw + 2lh$ $= 2(\text{length} \times \text{width}) + 2(\text{height} \times \text{width}) + 2(\text{length} \times \text{height})$
General Prisms		$V = Bh = \text{area of base} \times \text{height}$ $SA = \text{sum of the areas of the faces}$
Cylinder		$V = \pi r^2 h = \pi \times \text{square of radius} \times \text{height}$ $SA = 2\pi r^2 + 2\pi rh$ $= 2 \times \pi \times \text{square of radius} + 2 \times \pi \times \text{radius} \times \text{height}$ $\pi \approx 3.14 \text{ or } \frac{22}{7}$

Conversions

1 yard = 3 feet = 36 inches
 1 mile = 1,760 yards = 5,280 feet
 1 acre = 43,560 square feet
 1 hour = 60 minutes
 1 minute = 60 seconds

1 cup = 8 fluid ounces
 1 pint = 2 cups
 1 quart = 2 pints
 1 gallon = 4 quarts

1 liter = 1000 milliliters = 1000 cubic centimeters
 1 meter = 100 centimeters = 1000 millimeters
 1 kilometer = 1000 meters
 1 gram = 1000 milligrams
 1 kilogram = 1000 grams

1 pound = 16 ounces
 1 ton = 2,000 pounds

Equation of a Line

Slope-Intercept Form:

$$y = mx + b$$

where m = slope and b = y -intercept

Slope of a Line

Let (x_1, y_1) and (x_2, y_2) be two points in the plane.

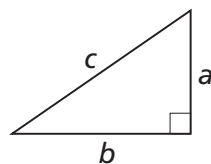
$$\text{slope} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1} \text{ where } x_2 \neq x_1$$

Distance Formula

$$d = rt$$

distance = rate \times time

Pythagorean Theorem



$$a^2 + b^2 = c^2$$

Temperature Formulas

$$^{\circ}\text{C} = \frac{5}{9}(\text{F} - 32)$$

$$^{\circ}\text{Celsius} = \frac{5}{9} \times (^{\circ}\text{Fahrenheit} - 32)$$

$$^{\circ}\text{F} = \frac{9}{5}\text{C} + 32$$

$$^{\circ}\text{Fahrenheit} = \frac{9}{5} \times ^{\circ}\text{Celsius} + 32$$

ISTEP+ Grade 7 Item Sampler

Indiana Statewide Testing for Educational Progress

